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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,661	01/22/2004	Janiece R. Hnilica-Maxwell	2199-000001	5155

27572 7590 12/13/2005

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EXAMINER

TAYLOR, VICTOR J

ART UNIT PAPER NUMBER

2863

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EK

**Office Action Summary**

Application No.

10/762,661

Applicant(s)

HNILICA-MAXWELL, JANIECE R.

Examiner

Victor J. Taylor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-12, 14-16 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 13 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6</u> . | 6) <input checked="" type="checkbox"/> Other: <u>Office Action</u> .                    |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on 22 January 2004. These drawings are approved.

### **Prior Art**

2. The prior art made of record and not relied upon is considered pertinent to applicant.

I. Art A of Dickey et al., US 5,821,405 in class 73/53.01 is cited for the for water quality sensor station sensors apparatus is cited the circuit board 10 and the plug-in sensors 16 with the serial connections to the PC for control and processing in figure 1 and the modularized plug-in sensors using the sealed or unsealed housing and PCB in lines 20-65 of column 3.

II. Art B of Falat US 4,869,874 in class 422/53 is cited for the circuit card and environmental sensors enclosed inside the housing directed to the self contained environmental atmospheric monitor disclosed in figure 2 all elements connected to the computer using the thermistors described in detail in lines 5-65 of column 3 and column 4.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 6-12, and 14-16 and 18-20 are rejected as being unpatentable over Bjornsson in U.S. Patent 5,621,669 B1.

With regard to claim 1, Bjornsson discloses an apparatus for detecting a plurality of environmental conditions in figure 1 with steps for using various types of sensors including those for moisture and temperature values under remote computer control and inside a housing in lines 5-60 of column 4. And,

a. He further discloses the steps of a housing unit containing at least one sensor selected from a group consisting of a temperature sensor, and a light sensor disclosed in the housing physical package cylinder 208 in figure 9 and discloses a plurality of sensors in line 57 installed in the housing 28 of column 24 and discloses the temperature sensor 16 in figure 1 and further discloses the photo detection sensor in the circuit in figure 4, He further discloses the multiple sensors of multiple types may concurrently operate of a single probe and indicate the environmental conditions in lines 15-21 of column 6 to include the temperature sensor and the light sensor among other sensors. And,

b. He further discloses the steps of a memory storage device disposed in said housing unit disclosed in the memory 494 on the circuit card and in the housing in figure 3. And,

c. He further discloses the steps of a circuit board electrically connected to at least one sensor and the memory storage device, and contained within the

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housing unit disclosed in the drawing for the circuit card with the housing and the sensors attached as depicted in figure 7 all elements and discloses the sensor electronic assembly 200 including the storage memory 494 in lines 20-40 of column 13. And,

d. He further discloses the steps of at least one moisture probe physically connected to the housing unit, and electrically connected to the circuit board disclosed in the electronic assembly 610 connected with the housing unit 608 connected with the moisture sensor 20 in figure 7 and in lines 45 and in lines 20-50 of column 13. And,

As to claim 2, which stand rejected on the rejected base claim, wherein said at least one sensor includes a sunlight intensity sensor and a temperature sensor disclosed the selection of multiple sensors of multiple sensor types to operate on a single probe to include the selection of a temperature and a light detection sensor as indicated in lines 15-22 of column 6.

As to claim 3, which stand rejected on the rejected base claim, wherein the housing unit further comprises an accessible compartment providing access to the memory storage device as disclosed in figure 7 and discloses as the adaptable probe with the water tight cap that is removable in components as described in lines 15-25 of column 7 and discloses simple connection and removable connections by connectors in lines 48-55 of column 5.

As to claim 6, which stand rejected on the rejected base claim, and wherein the light sensor is an ultraviolet sensor and the temperature sensor is a thermometer as disclosed in the selection of multiple sensors of multiple sensor

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types to operate on a single probe to include the selection of a temperature and a light detection sensor to include a sensor of the type required as indicated in lines 15-22 of column 6.

As to claim 7, which stand rejected on the rejected base claim, wherein a battery is required in the housing unit is selected from the choice of power sources and disclosed as the internal battery in line 3 of column 15.

As to claim 8, which stand rejected on the rejected base claim, wherein a battery charger is connectable to said housing unit to recharge the battery is disclosed in the sensor probe power supply circuit 496 in lines 30-50 of column 15 and connected with the battery 488 and charger power supply circuit figure 6.

As to claim 9, which stand rejected on the rejected base claim, wherein at least one solar cell for recharging the battery disclosed in the solar cell in line 4 of column 15.

With regard to claim 10, Bjornsson discloses a method of determining vegetation capable of thriving in a plurality of environmental conditions in figure 1 with steps for using the various types of sensors including those for moisture and temperature values in lines 5-60 of column 4. And,

a. He further discloses the steps of sensing the plurality of environmental conditions with an environment detection apparatus disclosed in the plurality of sensors for environmental parameters for example the PH sensor 14, and the temperature sensor 16 with the plurality of various sensors in figure 1. And,

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b. He further discloses the steps of storing the plurality of environmental conditions on a memory storage device disclosed in the probe module 200 in figure 1 and in the data storage unit 224 of figure 2. And,

c. He further discloses the steps of for downloading the plurality of environmental conditions to a database, wherein the database displays a list of vegetation capable of surviving in the plurality of stored environmental conditions using the line interface circuit 490 is disclosed in the microprocessor data processed for environment data using the loaded program elements and include the downloaded internal elements that provide the instruction to operator the programmed application 512 and address the register 514 and provide instructions to the decoder and issue the command in the database memory 540 and register the database memory to provide the input and the output instructions for using the environmental measurements from the sensor in lines 30-40 of column 13.

As to claim 11, which stand rejected on the rejected base claim, wherein the plurality of environmental conditions comprises a geographic location, a sunlight intensity reading, a date and time reading, a temperature reading, and a moisture reading is disclosed in the selection of plurality of sensors type that are selectable and in using the optical data path communications 442 by providing the connections with the control computer wherein the computer is clocking and the computer sequential programmable timing is providing the date and time reading. He does not describe the sunlight intensity reading sensor per se and

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discloses this specific selection of sensor type as a sensor type providing the function of the same impedance sensor 20 inputs on line 40 in figure 1.

As to claim 12, which stand rejected on the rejected base claim, wherein at least one ultraviolet sensor determines the sunlight intensity reading, and at least one moisture probe determines the moisture reading as selectable from the plurality of sensors in the multiple sensors of multiple sensor types disclosed in lines 18-22 of column 6.

As to claim 14, which stand rejected on the rejected base claim, wherein the user manually inputs the geographic location into the database, a timer determines the date and time reading, and a thermometer determines the temperature reading disclosed in the operator calibration and input of data from the tables found in figure 11.

With regard to claim 15, Koederitz discloses a control system for using an environment detection apparatus as an activation device for a sprinkler system 102 in figure 1 and in lines 5-60 of column 4. And,

a. He further discloses the steps of at least one sensor determining at least one environmental condition disclosed in the environmental a parameter measurement using the Ph sensor 14 in figure 1. And,

b. He further discloses the steps of at least one logical operation producing an output to an actuator 92 based on the at least one environmental condition disclosed is the selection of the fertilizer process 106 and sprinkler system based on measurement data from the conduction sensor 18 and the Ph sensor data controlled by the probe module 200 in figure 1. And,



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c. He further discloses the steps of the actuator activating the sprinkler system based on the output of the at least one logical operation disclosed when the conductivity measurements increase or decrease from the amount of moisture produced by the sprinkler system 104 and the associated sprinkler actuator 94 in figure 1 and in combination with the complete patent.

As to claim 16, which stand rejected on the rejected base claim, and wherein the at least one environmental condition is a sunlight intensity reading which is included the selection of the additional moisture sensor and the other sensors in the same assembly in lines 45-56 of column 26.

As to claim 18, which stand rejected on the rejected base claim, wherein the at least one environmental condition is a moisture reading detected in the conductance sensor 18 in which the change in reading data is due to the water wetting and the production of the conductive metallic ions in the soil in figure 1.

As to claim 19, which stand rejected on the rejected base claim, wherein a moisture probe determines the moisture reading and is preformed by the impedance sensor 20 in figure 1.

As to claim 20, which stand rejected on the rejected base claim, wherein the at least one environmental condition is a weather forecast which is read from a remote device and disclosed in the composite reference data inputted 496 to the controller 402 from the database input line 466 in figure 3.

***Allowable Subject Matter***

5. Claims 4 and 5 and 13 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form

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including all of the limitations of the base claim into the limitations of the independent claims and any intervening claims.

Wherein claim 4, which stands rejected on the rejected base claim, and wherein the memory storage device interfaces with the circuit board through a universal serial bus (USB) as disclosed in the art, the storage device 494 is connected with the computation probe controller 402 with the output 466 connected with the serial line interface 490 which comprise a serial bus in figure 3 and He further disclose input-output signals in lines 20-60 of column 11.

He does not disclose the USB port per se and shows the input-output signals connected to port 484 in line 58 of column 11.

And wherein claim 5, which stands rejected on the rejected base claim, wherein a global positioning satellite (GPS) system connection is required and which provides geographic information is not disclosed.

He does not disclose the GPS connection per se and shows the tri-state input-output signals 550 in figure 8 that are abatable for the GPS connection.

And wherein claim 13, which stands rejected on the rejected base claim, wherein a global positioning satellite system determines the geographic location, the date and time reading, and the temperature reading is not disclosed.

And wherein claim 17, at least one ultraviolet sensor determines the sunlight intensity reading is selectable from the selection of sensor configurations included in the selection of the additional moisture sensor and the other sensors in the same assembly found in lines 45-56 of column 26 and not specifically described as the ultraviolet sensor that determines the sunlight intensity reading

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***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor J. Taylor whose telephone number is 571-272-2281. The examiner can normally be reached on 8:00 to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on 571-272-2863. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

V. Taylor



7 December 2005.



John Barlow  
Supervisory Patent Examiner  
Technology Center 2800